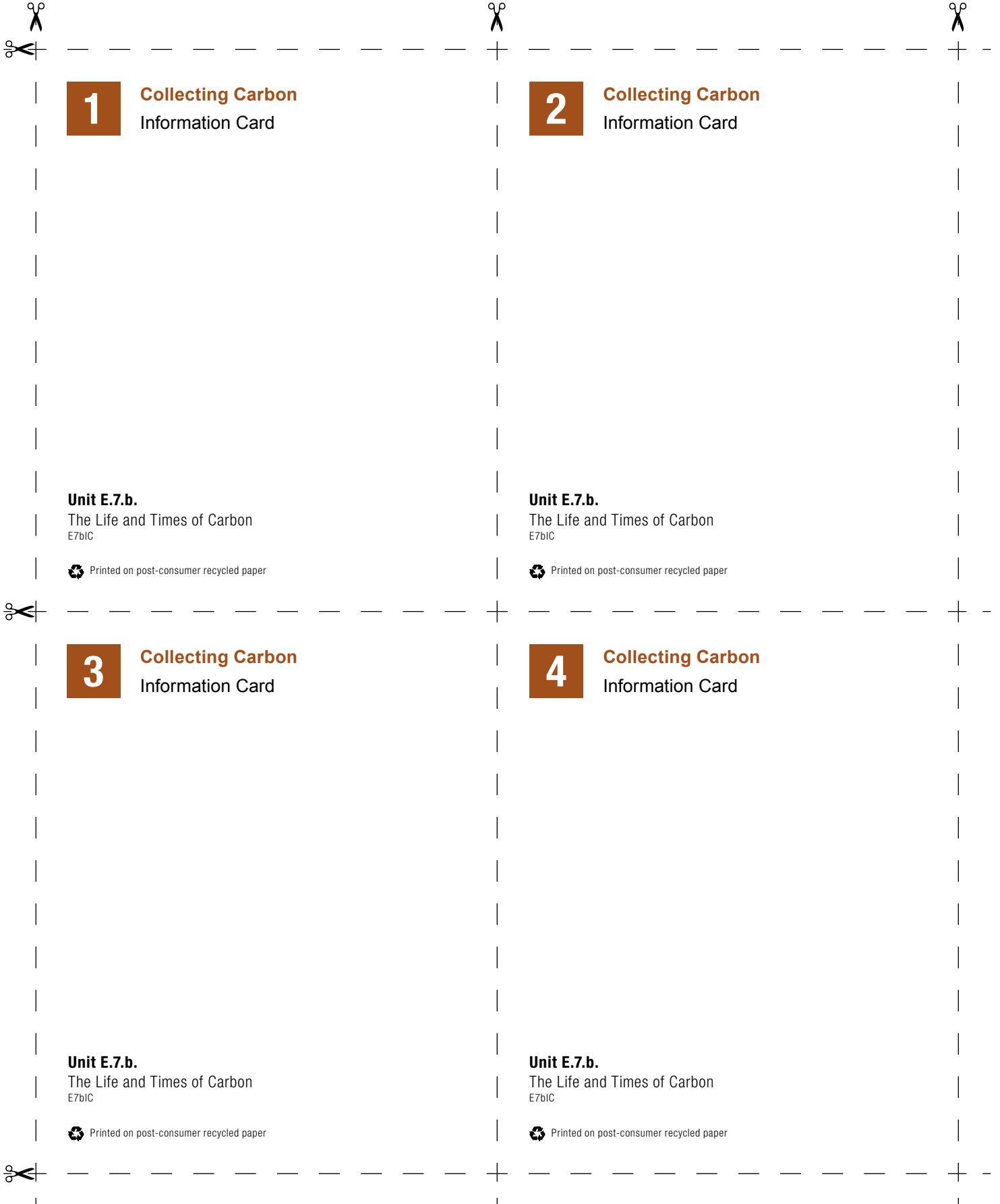


## Information Cards | cards 1–4 of 18

Information Cards | cards 1–4 of 18



## Collecting Carbon

Information Cards | cards 1–4 of 18



**Aspirin:**  $\text{C}_9\text{H}_8\text{O}_4$   
(acetylsalicylic acid)



**Breath of air:**  
 $\text{CO}_2$  (about 4% carbon dioxide)



**Carbonated beverage:**  
 $\text{H}_2\text{CO}_3$



**CD:**  $\text{C}_{16}\text{H}_{14}\text{O}_3$   
(repeating chains composed of carbon, hydrogen, and oxygen).  
These chains are called “polymers.”

Collecting Carbon

Information Cards | cards 5–8 of 18

5

Collecting Carbon  
Information Card

Unit E.7.b.

The Life and Times of Carbon

E7b1C

♻️

Printed on post-consumer recycled paper

6

Collecting Carbon  
Information Card

Unit E.7.b.

The Life and Times of Carbon

E7b1C

♻️

Printed on post-consumer recycled paper

7

Collecting Carbon  
Information Card

Unit E.7.b.

The Life and Times of Carbon

E7b1C

♻️

Printed on post-consumer recycled paper

8

Collecting Carbon  
Information Card

Unit E.7.b.

The Life and Times of Carbon

E7b1C

♻️

Printed on post-consumer recycled paper

## Collecting Carbon

Information Cards | cards 5–8 of 18



**Charcoal:**  $C$   
85–98% carbon



**Corn:**  $C_6H_{12}O_6$  (carbohydrate)



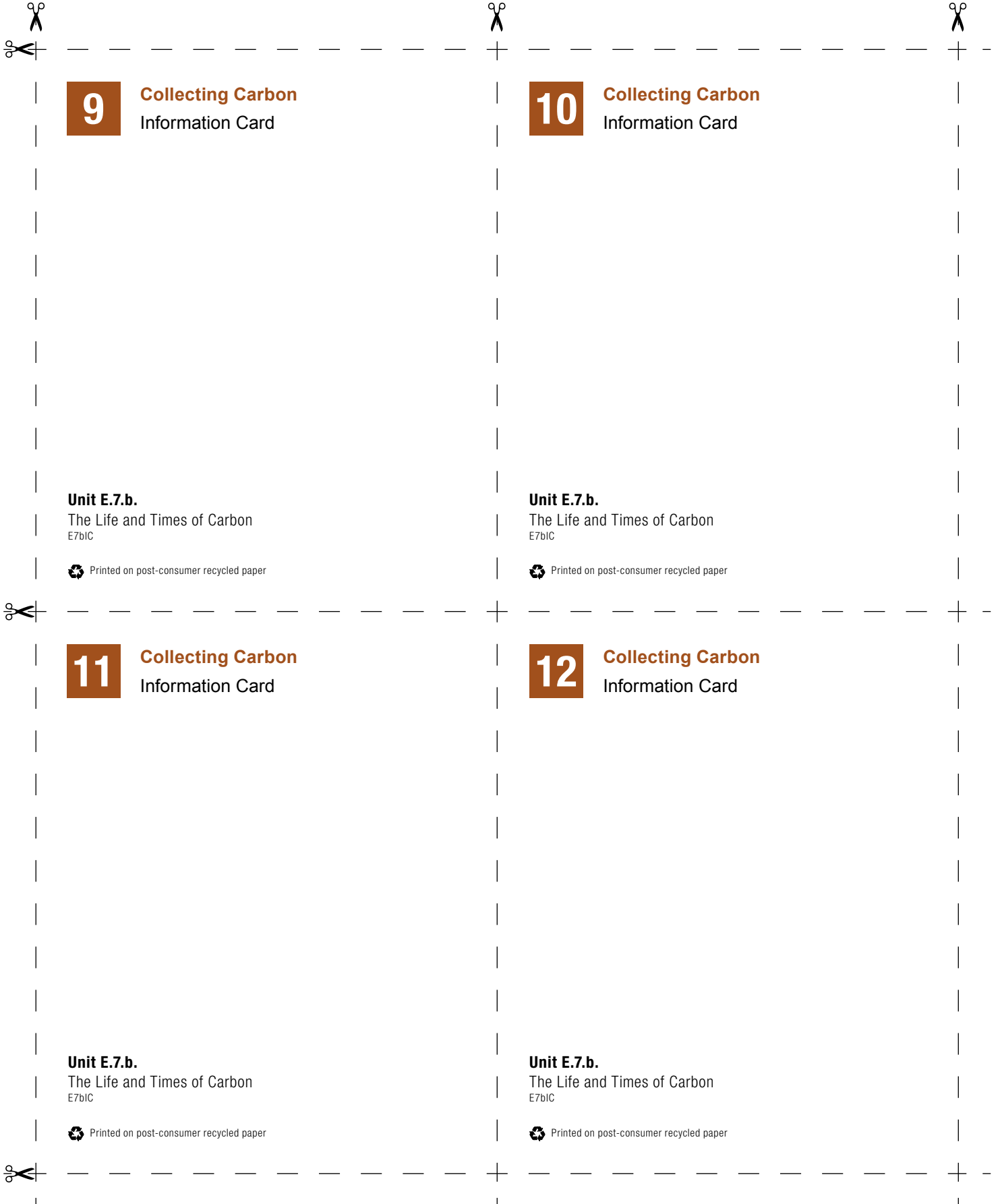
**Cotton:**  $C_6H_{10}O_5$   
Cotton is a form of carbohydrate that is nearly 100% cellulose fiber.



**Gasoline:**  $C_8H_{18}$  (hydrocarbon)

## Information Cards | cards 9–12 of 18

Information Cards | cards 9–12 of 18





## Collecting Carbon

Information Cards | cards 9–12 of 18



**Glass:**  $\text{SiO}_2$  (silicon dioxide)

**Water:**  $\text{H}_2\text{O}$



**Hot dog (protein):**  $\text{C}_2\text{H}_4\text{O}_2\text{NR}$   
(where R is any amino acid side chain)





**Limestone (cement):**  $\text{CaCO}_3$   
(Ca is “calcium”)



**Pencil lead (graphite):** C  
(pure carbon)

## Collecting Carbon

Information Cards | cards 13–16 of 18

✂	✂	✂
<div data-bbox="175 352 518 432"><b>13</b> Collecting Carbon Information Card</div> <div data-bbox="175 953 451 1033"><b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C</div> <div data-bbox="175 1062 470 1087"> Printed on post-consumer recycled paper</div>		
<div data-bbox="175 1184 518 1264"><b>15</b> Collecting Carbon Information Card</div> <div data-bbox="175 1785 451 1864"><b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C</div> <div data-bbox="175 1894 470 1919"> Printed on post-consumer recycled paper</div>		

## Collecting Carbon

Information Cards | cards 13–16 of 18



### Plant material:

(carbohydrate):  $C_6H_{12}O_6$



### Plastic: $CH_2=CH_2$

The typical plastic water bottle is a simple hydrocarbon polymer.



### Seashells: $CaCO_3$

(calcium carbonate)



### Stainless steel: $Fe_3C$

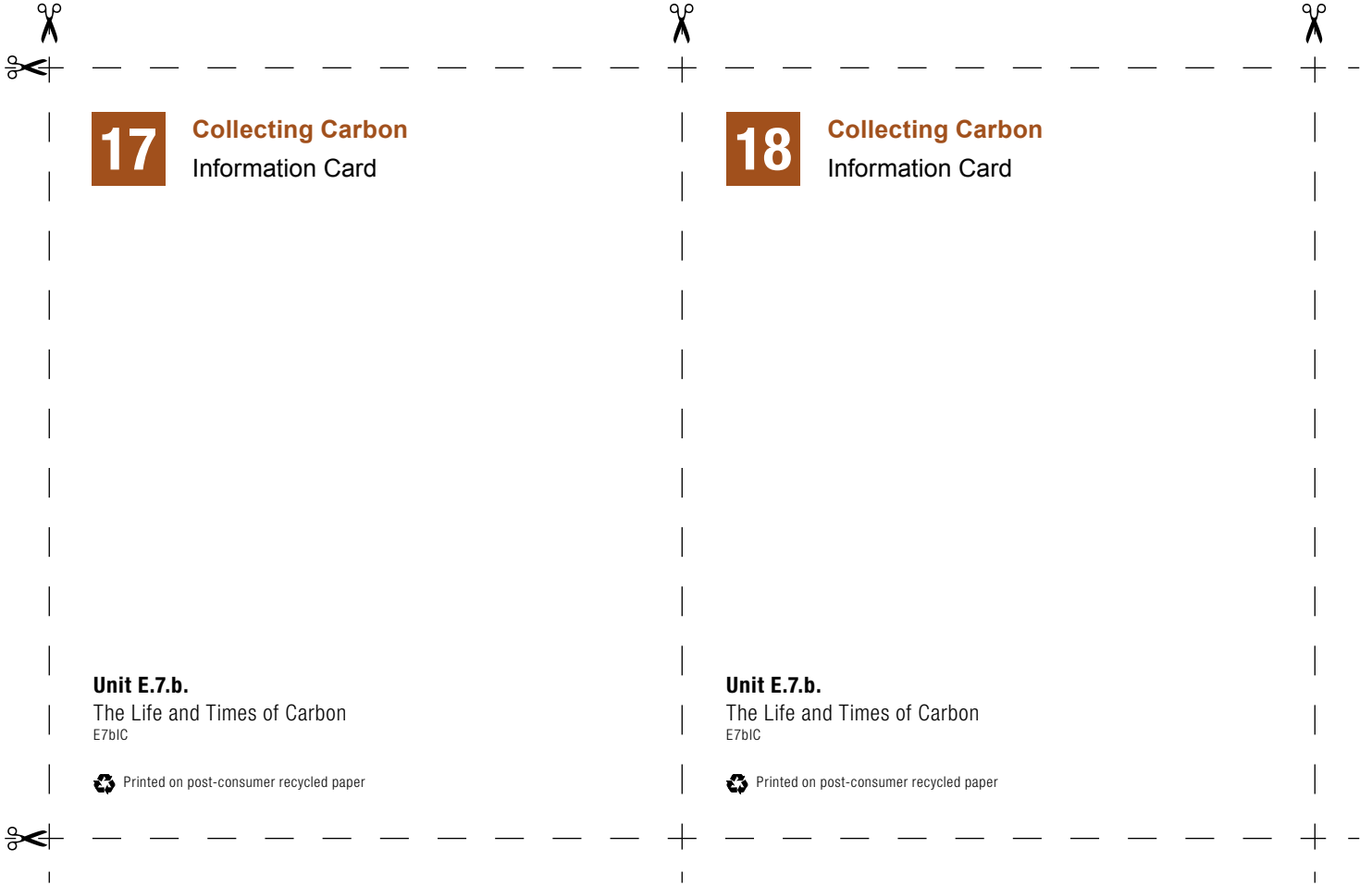
(one of many possible formulas)

Stainless steel varies but, usually contains between 0.2–2.1% carbon.



## Collecting Carbon

Information Cards | cards 17–18 of 18



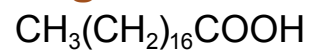
## Collecting Carbon

Information Cards | cards 17–18 of 18

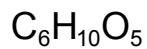
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**Vegetable oil (fat or lipid):**


























**Wood:**



## Carbon Item Labels

Information Cards | 1–8 of 18

	<b>19</b> Carbon Item Labels Information Card		<b>20</b> Carbon Item Labels Information Card	
	<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C		<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C	
	 Printed on post-consumer recycled paper		 Printed on post-consumer recycled paper	
	<b>21</b> Carbon Item Labels Information Card		<b>22</b> Carbon Item Labels Information Card	
	<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C		<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C	
	 Printed on post-consumer recycled paper		 Printed on post-consumer recycled paper	
	<b>23</b> Carbon Item Labels Information Card		<b>24</b> Carbon Item Labels Information Card	
	<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C		<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C	
	 Printed on post-consumer recycled paper		 Printed on post-consumer recycled paper	
	<b>25</b> Carbon Item Labels Information Card		<b>26</b> Carbon Item Labels Information Card	
	<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C		<b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C	
	 Printed on post-consumer recycled paper		 Printed on post-consumer recycled paper	
				

## Carbon Item Labels

Information Cards | 1–8 of 18



**Aspirin:**  
 $C_9H_8O_4$   
(acetylsalicylic acid)



**Breath of air:**  
 $CO_2$   
(about 4% carbon dioxide)



**Carbonated beverage:**  
 $H_2CO_3$



**CD:**  
 $C_{16}H_{14}O_3$   
(repeating chains composed of carbon, hydrogen, and oxygen). These chains are called “polymers.”



**Charcoal:** C  
85–98% carbon



**Corn:**  
 $C_6H_{12}O_6$   
(carbohydrate)


























**Cotton:**  
 $C_6H_{10}O_5$   
Cotton is a form of carbohydrate that is nearly 100% cellulose fiber.



**Gasoline:**  
 $C_8H_{18}$   
(hydrocarbon)

## Carbon Item Labels

Information Cards | 9–16 of 18

 <b>27</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	 <b>28</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	
 <b>29</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	 <b>30</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	
 <b>31</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	 <b>32</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	
 <b>33</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	 <b>34</b> Carbon Item Labels Information Card  <b>Unit E.7.b.</b> The Life and Times of Carbon E7b1C   Printed on post-consumer recycled paper	
		



## Carbon Item Labels

Information Cards | 9–16 of 18



**Glass:**  
 $\text{SiO}_2$   
(silicon dioxide)

**Water:**  
 $\text{H}_2\text{O}$



**Hot dog (protein):**  
 $\text{C}_2\text{H}_4\text{O}_2\text{NR}$   
Where R is any amino acid side chain.



**Limestone (cement):**  
 $\text{CaCO}_3$   
(Ca is "calcium")



**Pencil lead:**  
graphite C  
(pure carbon)



**Plant material:**  
(carbohydrate):  
 $\text{C}_6\text{H}_{12}\text{O}_6$



**Plastic:**  
 $\text{CH}_2=\text{CH}_2$   
The typical plastic water bottle is a simple hydrocarbon polymer.



**Seashells:**  
 $\text{CaCO}_3$   
(calcium carbonate)





**Stainless steel:**  
 $\text{Fe}_3\text{C}$  (one of many possible formulas).  
Stainless steel varies but, usually contains between 0.2-2.1% carbon.

Carbon Item Labels

Information Cards | 17–18 of 18



35


Carbon Item Labels


Information Card



Unit E.7.b.

The Life and Times of Carbon

E7b1C

 Printed on post-consumer recycled paper



36


Carbon Item Labels


Information Card



Unit E.7.b.

The Life and Times of Carbon

E7b1C

 Printed on post-consumer recycled paper



36


Carbon Item Labels


Information Card

Unit E.7.b.

The Life and Times of Carbon

E7b1C

 Printed on post-consumer recycled paper



## Carbon Item Labels

Information Cards | 17–18 of 18

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**Vegetable oil  
(fat or lipid):**  
 $\text{CH}_3(\text{CH}_2)_{16}\text{COOH}$



**Wood:**  
 $\text{C}_6\text{H}_{10}\text{O}_5$